Iranian nurse attitudes towards the presence of family members during CPR

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Abstract

Aim: The presence of family members at the time of cardiopulmonary resuscitation (CPR) is essential in family-centered care. Since nurses have an important role in facilitating the attendance of patients' family members in this regard, the present study was conducted to examine nurse attitudes towards the family's presence during CPR. **Methods:** This study was conducted across three teaching hospitals in Kerman province located in South East of Iran. Using convenience sampling, all registered nurses were invited to participate in the study. Data were collected between January and March 2014 using the attitude questionnaire on family presence during resuscitation. **Results:** Of 303 nurses, 92.5% were women. The mean attitude score of nurses was 50.99 ±7.12. The main perceived barriers to family presence during resuscitation by Iranian nurses were increased stress and anxiety among CPR team members, traumatic experience for the family members, difficulty around stopping CPR in futile situations owing to family requests, and family impressions about the fear of litigation related to resuscitation. **Conclusion:** This study revealed that nurses may have not positive attitudes towards family presence during CPR. It is necessary to improve these attitudes via educational programmes.

Key words

◆ Health-care worker ◆ Attitude ◆ Family-centered care ◆ Patient family members ◆ Cardiopulmonary resuscitation (CPR)

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The core concept of family-centred care (FCC) should involve families in all aspects of health-care delivery (Tomlinson et al, 2010). The presence of family members during cardiopulmonary resuscitation (CPR) is very important in FCC (Duran et al, 2007). Despite both international and local CPR guidelines recommending the presence of family members during resuscitation, or outlining the benefits of this event for both patients and their family, in some hospitals in Iran, family members are still not permitted to be present during CPR (McClenathan et al, 2002; Duran et al, 2007; Lam et al, 2007; Zakaria and Siddique, 2008; Masa'Deh et al, 2014).

Attitudes and opinions towards the presence of family during CPR may vary among patients, family members and health-care workers. In a qualitative study, McMahon-Parkes et al (2009) evaluated the views and preferences of resuscitated and non-resuscitated patients towards family presence during resuscitation. Their study showed that although patients may recognise that family members might have emotional, informational and proximity needs, these had to be balanced with allowing the resuscitation team members to manage the clinical emergency situation and make suitable decisions. They concluded that health-care workers should strive to identify the wishes of patients and relatives with respect to family-witnessed resuscitation and facilitate the presence of loved ones as appropriate (Mcmahon-Parkes et al, 2009). In another study, Duran et al (2007) investigated the opinions of 202 clinicians, 72 family members, and 62 patients towards family presence during CPR, in the emergency department and adult and neonatal intensive care units of a 300-bed urban academic hospital in the USA (Duran et al, 2007). Their results showed that patients, their families and clinicians have had positive attitudes towards this issue and concluded that family's presence during CPR could be beneficial for patients, their families, and health-care providers alike (Duran et al, 2007). However, clinicians in the study reported concerns about safety, the emotional responses of family members, and performance anxiety with family present during CPR. In Fulbrook et al (2005), attitudes of European critical care nurses who

attended the first conference of the European Federation of Critical Care Nursing Associations (EfCCNa) were examined, as well as their experiences of having family members present during CPR; nurses were divided into two groups—UK and non-UK nurses. Their study found that European critical care nurses supported the presence of family members during CPR (Fulbrook et al, 2005). However, when comparing the attitudes of UK and non-UK nurses, they indicated significant differences in overall attitudes relating to decisions of resuscitation, process of resuscitation, and outcomes of resuscitation. They reported that UK nurses have more positive attitudes than non-UK nurses (Fulbrook et al, 2005).

Although most studies about family presence during CPR have been conducted in developed countries, the results of a few studies in developing and underdeveloped countries show different findings. In one study in Iran, Kianmehr et al (2010) examined the attitudes of CPR team members (including nurses) towards family presence during CPR. Contrary to general guidelines (Bhanji et al, 2015), they found that the majority of CPR responders do not favour the presence of family during CPR, mainly because of fear of psychological trauma to family members, possible interference with patient care/decision-making, and a perceived increase in staff stress (Kianmehr et al, 2010). In another study, Güneş and Zaybak (2009) studied the attitudes of 135 critical-care nurses towards the presence of family members during CPR in two Turkish University hospitals. They showed that only a few Turkish critical-care nurses had experienced a situation where family members were present during CPR (Güneş and Zaybak, 2009). They also reported that the majority of Turkish critical-care nurses were not in agreement with family presence during CPR owing to performance anxiety, fear of causing psychological trauma to family members, and increased risk of medico-legal claims (Güneş and Zaybak 2009). In contrast to the results of Güneş and Zaybak (2009) and Kianmehr et al (2010), results of one study in the Kingdom of Saudi Arabia, that examined attitudes of 192 acute-care nurses, revealed a positive attitude about family presence during CPR (Omran et al, 2015). Major concerns about family presence during CPR, however, were the safety of patients and patients' families, performance anxiety, emotional effects on family members, and the danger of misplacing their professional abilities with family present (as a result of performance anxiety) while caring for patients (Omran et al, 2015).

Although family presence during CPR could be beneficial for patients, family members and health professionals; many nurses do not agree that family should be present. Working as a nurse in a country, such as Iran, with different religious beliefs, cultural and sociodemographic factors, may be affecting nurses' attitudes towards this important topic. Since few studies have investigated this, the current study examined Iranian nurse attitudes towards family presence during CPR in 2014.

Methods

This study was conducted across three teaching hospitals in Kerman Province located in South East Iran in 2014. These hospitals provide medical services for all parts of the Kerman province. The study sample comprised registered nurses (n=303) from three hospitals with more than 1 year of experience working in hospital. The study received approval from the Research Deputy of Kerman University of Medical Sciences as well as the heads of three hospitals prior to the collection of any data. In addition, written permission was obtained from the all nurses who participated in the study after being given some oral information about the study aims.

Data were collected between January and March 2014 using the standard attitude questionnaire on family's presence during resuscitation. This questionnaire was originally developed by Lam et al (2007) and consists of 19 questions examining the subjects' attitudes towards family presence during resuscitation. Questions 1 to 4 examined the health belief, namely whether the health professionals believed that the practice of family presence during resuscitation was beneficial. Questions 5 to 7 examined the cues or triggers that helped to initiate the practice. Questions 8 and 9 examined their perceived self-efficacy and their perception of whether they were able to handle the situation well. Questions 10 and 11 examined their subjective norms, which meant their perceived social pressure to conform to the practice. Questions 12 to 18 examined their perceived behavioural control, which reflected their perception of costs, barriers or risks associated with letting the family stay during resuscitation. The last question (19) was a direct question asking about the respondents' acceptance of the practice of family presence during resuscitation. Responses to all questions were graded on a Likert scale from one to five according to the degree of acceptance of the practice of family presence during resuscitation (i.e. 1=strongly support; 2=support; 3=neutral; 4=not support; 5=strongly not support). Higher scores indicated more negative attitudes towards family presence during CPR. Lam et al (2007) reported a good validity for their questionnaire. For translation of the questionnaire from English to Farsi, the standard forward–backward procedure was applied (Jafari et al, 2008). Translation of the items and response categories was independently performed by three professional translators and temporary versions were provided. Later, they were translated back into English and after a careful cultural adaptation, the final versions were provided. Translated questionnaires went through pilot testing. Suggestions from nurses were incorporated into the final questionnaire versions. A factor analysis (rotated component matrix) on the attitude questionnaire on family's presence during adults' resuscitation was done to determine the context validity of the questionnaire. The validity of the questionnaire has been assessed through a content validity discussion. Experts in CPR, made up of five nurse educators, three nurses and two physicians from the CPR teams of five hospitals in Iran, have reviewed the content of the questionnaire. To reassess the reliability of the translated questionnaire, alpha coefficients of internal consistency and 3-week test–retest coefficients (n=60) of stability were computed. The alpha coeffi-

Table 1. Nurses' responses to questionnaire items

	Questionnaire items	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
	Health belief					
1	Relatives can benefit from the experience by allowing proper expression of grief reaction	46(15.2%)	117(38.6%)	51(16.8%)	68(22.4%)	21(6.9%)
2	Relatives can be kept informed of the progress of resuscitation	19(6.3%)	90(29.7%)	44(14.5)	110(36.3%)	40(13/2%)
3	Relatives can touch or talk to the dying patient for the last time	57(18.8%)	124(40.9)	40(13.2%)	69(22.8%)	13(4.3%)
4	Witnessing resuscitation is a traumatic experience for the family members	99(32.7%)	138(45.5%)	29(9.6%)	30(9.9%)	7(2.3%)
	Triggers					
5	It should be written in the resuscitation checklist of our department to ask if relatives would like to witness the resuscitation process	11(3.6%)	54(17.8%)	65(21.5%)	141(46.5%)	32(10.6%)
6	Relatives have the right to request to stay in the resuscitation room during resuscitation	15(5%)	37(12.2%)	37(12.2%)	159(52.5%)	55(18.2%)
7	There is enough staff in my workplace to support the family members when they witness the resuscitation	4(1.3%)	28(9.2%)	31(10.2%)	139(45.9%)	101(33.1%)
	Self-efficacy					
8	My clinical performance will be affected by relatives' presence	46(15.2%)	157(51.8%)	35(11.6%)	53(17.5%)	12(4%)
9	I am adequately trained to support family members when they witness the resuscitation	8(2.6%)	54(17.8%)	65(21.5%)	125(41.3%)	51(16.8%)
	Norms					
10	My supervisor would expect me to allow relatives to stay during resuscitation	3(1%)	16(5.3%)	71(23.4%)	169(55.8%)	44(14.5%)
11	My colleagues will not allow relatives to stay during resuscitation	69(22.8%)	149(49.2%)	36(11.9%)	44(14.5%)	5(1.7%)
	Perceived behavioural control					
12	I will allow the relative to be present only if he is well informed first, and accompanied by a knowledgeable member of the bereavement team	42(13.9%)	115(38%)	49(16.2%)	83(27.4%)	14(4.6%)
13	Resuscitation team members' emotional disturbance would be too strong with the presence of family members	89(29.4%)	150(49.5%)	43(14.2%)	20(6.6%)	1(0.3%
14	It would be difficult to stop resuscitation should relatives disagree	88(29%)	139(45.9%)	42(13.9%)	32(10.6%)	2(0.7%)
15	It is likely that family members may have the impression that the resuscitation is chaotic	96(31.7%)	123(40.6%)	36(11.9%)	44(14.5%)	4(1.3%)
16	Relatives' presence during resuscitation activities would increase our risks of litigation	83(27.4%)	128(42.5%)	57(18.8%)	35(11.6%)	0(0%)
17	If relatives are not present, they will express anger towards staff for not doing everything possible to save the patient	45(14.9%)	94(31%)	117(38.6%)	43(14.2%)	4(1.3%)
18	This practice constitutes a breach of confidentiality without prior consent by the patient	50(16.5%)	96(31.6%)	54(17.8%)	47(15.5%)	56(18.5%)
	Acceptance of the practice of FPDR					
19	I support the practice of allowing family members to be present during cardiopulmonary resuscitation	6(2%)	22(7.3%)	52(17.2%)	144(47.5%)	79(26.1%)

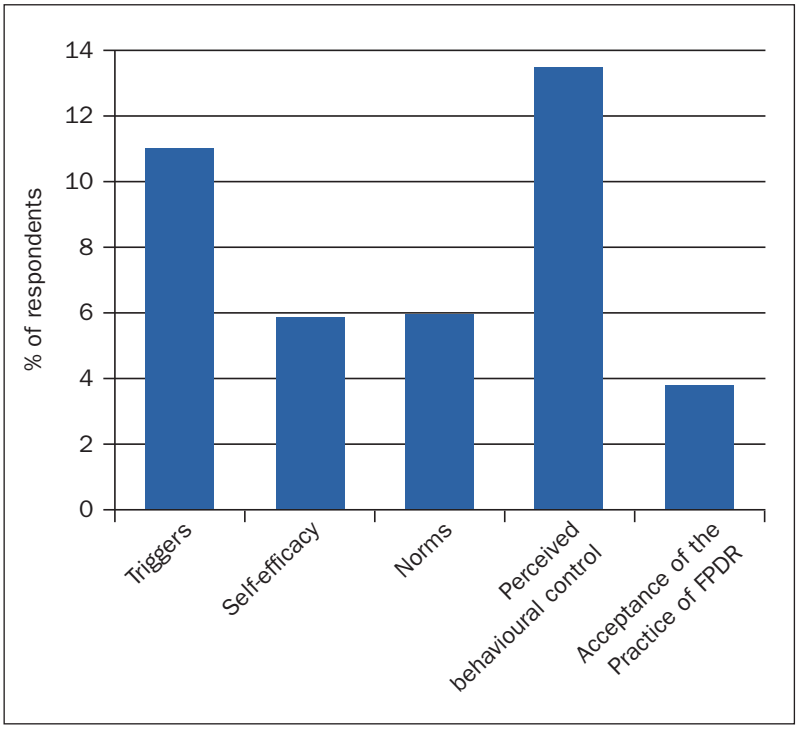

Figure 1. Nurses' mean attitude score in each of the six domains

cient for the questionnaire was 0.83. The 3-week test–retest coefficient of stability for the questionnaire was 0.74. Overall, the translated scale presented an acceptable reliability for family presence during adults' resuscitation.

A list of potential participants was introduced to the researchers by the head of nursing office of each hospital. All registered nurses were invited to participate in the study. Questionnaires were distributed by the head nurse of each ward and the researcher (lead author) on all three work shifts (days, evenings, and nights). Participants answered individually during work hours and returned the test to the researcher after being given some oral information about the questionnaire items. Participation in the study was voluntary. In addition, all participants were promised that all data would remain anonymous, be kept confidential, and be stored safely.

Descriptive statistics, Pearson correlation test, independent t-test and one-way ANOVA were used to analyse data. All data were analysed using SPSS (v. 18.0) and a variable was found to be statistically significant if $p<0.05$.

Results

Of 303 nurses, 92.5% were women. The mean age of nurses as 33.5 ± 6.2 years (range: 22–53 years). Mean years of nurses' experience was 9.6 ± 6.5 years (range: 1–30 years). All nurses in the present study were Muslim. Most nurses have previous history of participation in CPR (94.5%). More than half of nurses (66.6%) in the present study reported experiencing a formal problem with the presence of a patient's family during CPR previously (nurses did not report cause and type of problems). None of the hospitals had a formal protocol or policy regarding the presence of family during CPR.

The mean score of nurses' attitudes was 50.99 ± 7.12. *Figure 1* shows the mean score in each of the six domains. Nurses have obtained a higher score (most negative attitude) from item 7: i.e. 'There is enough staff in my workplace to support the family members when they witness the resuscitation' (4.0 ± 0.96) and a lower score (most positive attitude) from item 13: 'Resuscitation team members' emotional disturbance would be too strong with the presence of family members' (1.9 ± 0.85).

Table 1 shows nurses' responses to the 19 questionnaire items. Although female nurses showed more positive attitudes than male nurses (50.8 ± 6.9 vs. 52.2 ± 8.2), this gender difference was not statistically significant ($p=0.458$). There was also no significant difference between the attitudes of nurses with previous experience of formal problems with family presence during CPR and those without ($p=0.214$). Nurses with previous experience of a formal problem with family presence during CPR did however show more negative attitudes in comparison with other nurses (51.1 ± 7.3 vs. 50.01 ± 6.4). In addition, the mean score of attitudes among nurses who had some experiences of participation in CPR was 50.72 ± 7.08. This score in nurses who have not had experience of participation in CPR was 51.50 ± 5.50. Again, these differences between groups were not statistically significant ($p=0.668$). Pearson's correlation did not show any significant relationship between nurses' age and years of experience with nurses' attitudes to family presence during CPR ($p>0.05$). Finally, there was a significant difference between attitudes of nurses who work on different wards ($p=001$). In fact, intensive care unit (ICU) nurses showed more positive attitudes towards family presence during CPR.

Discussion

This study examined Iranian nurses' attitudes towards family presence during CPR and found these to be neutral. The main perceived barriers to family presence during resuscitation by Iranian nurses were: increased stress and anxiety among CPR team members, traumatic experience for the family members, difficulty with stopping CPR in futile situations owing to the potential requests of the family, family impressions that the resuscitation is chaotic, and fear of litigation.

Family presence could be defined as the attendance of patients' family members during CPR and may be used as an example of FCC (Duran et al, 2007; Ganz and Yoffe, 2012). Although family presence during CPR may have positive effects on patients, their family members and health-care team members, similar to many hospitals in developing countries, Iranian hospitals did not have formal policies or protocol in place to consider family presence during CPR.

Previous research has reported different findings. For example, while Axelsson et al (2010) studied European cardiovascular nurses' attitudes towards family members' presence in the resuscitation room during resuscitation. Similar to the current study's findings, they reported no clear atti-

tude towards family presence during resuscitation (Axelsson et al, 2010). Badir and Sepit (2007) found that most Turkish critical-care nurses have not had experience of family presence during CPR and reported that the majority of the nurses did not agree with family presence during CPR (Badir and Sepit, 2007). In another study, Fulbrook et al (2007) studied the attitudes of European paediatric critical-care nurses towards parental presence during the resuscitation of a child and reported that nurses are very supportive of family presence during CPR (Fulbrook et al, 2007).

Most perceived barriers to family presence during resuscitation in the present study are similar to those reported in other studies. For instance, in a review by Porter et al (2015), the most important perceived barriers to family presence during CPR in the emergency department were identified as increasing stress and anxiety, distraction by relatives, fear of litigation, traumatic experience and family interference (similar to the findings in the current study). In another study, Boehm (2012) outlined 11 items to show the perceived problems with the presence of family members during CPR from the point of view of the health-care team. These items are also similar to those in the current study. For example, these include (Boehm, 2012):

- Interference with providing a high level of care that patients needed
- Increased emotional stress among health-care team members
- Difficulty in controlling emotional response by CPR team members
- Prolongation of CPR time in futile situations resulting from requests from the family
- Increased level of staff anxiety regarding potential loss of control over the environment and the possibility of disruptive behaviour from the patient's family
- Fear that family members may witness potential errors and further complications, especially if the patient dies, or misunderstand what they see or hear
- Fear of self-harm of family members which may cause diverting resources and equipment away from resuscitating the patient
- Lack of space in the resuscitation room to accommodate the family members
- Lack of trained personnel to support family members during CPR
- Concern about patient's confidentiality and right to privacy
- Limitation in new personnel training.

Although most nurses in the present study and several similar studies were concerned about the wellbeing of relatives and staff after allowing family to be present during CPR, results of randomised controlled trials showed different findings. For example, Jabre et al (2013) examined the effect of family presence during CPR on post-traumatic stress disorder (PTSD)-related symptoms, and symptoms of anxiety and depression, as well as the effect of family presence on medical efforts, the wellbeing of the health-care team, and the occurrence of medico-legal claims in prehospital emergency-medical service units. . They enrolled 570 relatives of patients who were in cardiac arrest. Results showed that the incidence of PTSD-related symptoms, anxiety and depression were higher among family members who did not witness CPR than among those who did. They also showed that family-witnessed CPR did not affect resuscitation characteristics, patient survival, or the level of emotional stress in the medical team, and did not result in medico-legal claims (Jabre et al, 2013).

Limitations

The respondents were predominantly female, which limits the generalisability of the results for male nurses. As this study was based on voluntary participation, there might have been a selection bias that affected the possibility to generalise the results to all nurses. Furthermore, use of the self-reported questionnaire may have led to an overestimation of some of the findings.

Conclusion

Although CPR guidelines recommend family presence during CPR, the results of this study revealed that Iranian registered nurses showed neutral attitudes overall towards family presence during CPR. With regards to increasing evidence about the value of family's presence during CPR, the authors recommend further educational programmes for health-care team members prior to the implementation of future protocols and policies allowing family's presence during CPR. Further research is needed to examine the potential effects of education programmes on the attitudes of nurses towards family presence during CPR. Also, investigation into the causes and types of formal problems that nurses experience with family's presence during CPR is recommended for future study. BJCN

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Key Points

- The core concept of family-centered care should involve families in all aspects of health-care delivery
- This study examined Iranian nurses' attitudes towards the presence of patients' family during CPR and found these to be neutral
- The main perceived barriers to family presence during resuscitation by nurses in the present study were: increased stress and anxiety among CPR team members; traumatic experience for the family members; difficulty with stopping CPR in futile situations owing to the potential requests of the family; family impressions that the resuscitation is chaotic; and fear of litigation
- It is necessary to improve nurses' attitudes towards the presence of family during CPR via educational programmes

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